

**DEER CREEK  
INTAKE PROJECT**

Safeguarding Water  
Securing Our Future



# Safeguarding Water Securing Our Future

# Deer Creek Dam & Reservoir



**Supplies Water  
to Over 1.6 Million People**



**Vital to  
Utah's Economy**



**One of the Most Utilized  
Recreational Ecosystems in Utah**

**1 Out of every 2 Utahns**  
Count on This Vital Water Supply



**80-Year Old**  
Intake & Guard Gates



**153,000 AF**  
Of Water Storage



**75% Increase**  
In Population Served By 2060

## Planning

### 2018 Preliminary Study

- Aging Infrastructure
- Invasive Species Mitigation
- Water Quality
- Construction Scheduling
- Coordination with State Parks



# Water Supply Concerns



## Aging Infrastructure

- Intake & guard gates built 80 years ago
- End of useful life reached
- Manufacturer parts no longer available
- Performing maintenance is challenging without having to drain the reservoir



## Invasive Species Threat

- Imminent threat from Quagga mussels with no effective defense against them
- Would render intake and guard gates useless or require extensive maintenance
- Negative impacts on reservoir ecosystem

# Innovative Solution, Uninterrupted Water Supply

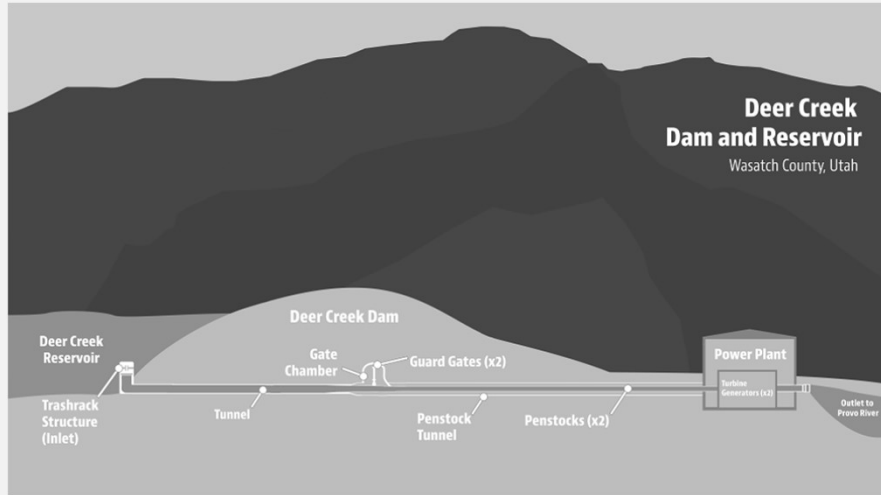


**Innovative design and construction method replaces intake and guard gates **WITHOUT** draining reservoir**



**State-of-the-art defense mechanisms against Quagga mussels with design features to improve water quality**

# Evaluation of Alternatives



-  Guard Gate Replacement
-  Modify Existing Intake Trashracks
-  New Intake Tower

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## Underwater Construction

### AE2S

- No Draining of Reservoir
- Less Impactful to Wet and Dry Water Years

### Anticipated Construction Schedule

- Summer 2020
  - Geotechnical Investigation
  - Preliminary Design Options
- 2020-2021
  - Design Phase
- 2022-2023
  - Construction

### Community Awareness

- Educate Public & Users



CUWCD Jordanelle  
Intake Tower

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# Digging In: Project Schedule



**Project began with diving the reservoir and crews are currently boring**

	2018 to 2019	2020				2021				2022				2023				2024			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Preliminary Study	<div></div>																				
Study & Report		<div></div>																			
Preliminary Design		<div></div>																			
Final Design						<div></div>															
CMGC		<div></div>																			
Construction										<div></div>											
Post-Construction										<div></div>											
I&C System Services														<div></div>				*Project schedule is not finalized			
Communications		<div></div>																			

\*Project schedule is not finalized

## Funding Options

- **WIFIA**
- **State of Utah**
  - Drinking Water Board
  - Water Resources Board
- **CUWCD**
- **Other Partnering Agencies**



# WIFIA

→ Water Infrastructure Finance and Innovation Act

- **EPA program that leverages federal funds one hundred-fold**
- **\$20M minimum project size**
- **WIFIA will fund up to 49% of a selected project**



## Deer Creek Intake Project Meets WIFIA Funding Criteria

- ✓ Regionally significant project.
- ✓ Area is affected by climate change and extreme weather conditions.
- ✓ \$40M Multigenerational project that provides water for drinking, irrigation, and economic development.
- ✓ Funding would allow the project to start significantly sooner.
- ✓ Project design and construction protects against invasive species and reduces disruption to ecosystem.
- ✓ Project serves an area of the US with significant water issues and a population projected to increase 75% by 2060.
- ✓ Addresses 80-year old infrastructure that is reaching the end of its service life.
- ✓ Can meet cost share responsibilities.

# Deer Creek Dam & Reservoir By the Numbers

**1 OUT OF EVERY 2 UTAHNS**  
counts on this  
vital water supply

**100,000 ACRE-FEET**  
of water delivered to  
end users every year

**1.6M+ AMERICANS**  
will be spared from water  
interruption or shortages

**80-YEAR OLD**  
intake & guard gates

**\$40M +/-**  
to construct replacement  
infrastructure

**2022**  
year the Deer Creek Intake  
Project will be shovel ready

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